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10/018,018	04/22/2002	Karen Briley-Sacbo	NIDN-10427	3572

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GE HEALTHCARE, INC.
IP DEPARTMENT
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EXAMINER

SMITH, RUTH S

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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SEP 14 2007

Group 3700

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/018,018
Filing Date: April 22, 2002
Appellant(s): BRILEY-SAEBO ET AL.

MAILED

SEP 14 2007

Group 3700

GE Healthcare, Inc.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed August 8, 2007 appealing from the Office action mailed March 12, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

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The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is substantially correct. The brief incorrectly refers to independent claim 1 rather than independent claim 14.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: The Appellant incorrectly refers to U.S. Patent No. 5,819,728. The correct Patent No. for the Kuhn reference is U.S. Patent No. 5,810,728.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,810,728	KUHN	9-1988
5,553,619	PRINCE	9-1996
5,382,421	WHITE et al	1-1995
WO 97/25073	GUNTHER et al	7-1997
6,045,775	ERICSSON et al	4-2000
5,560,360	FILLER et al	10-1996

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

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Claims 14-15, 25 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn et al in view of Prince ('619) or White et al. Kuhn discloses MR imaging whereby a catheter filled with a blood pool contrast agent (column 6, lines 20-35) is placed into the vasculature of a patient and an MR image of at least a part of the body containing the catheter is generated. The contrast agent within the catheter allows one to visualize the tip of the catheter and to guide its placement in the body. The catheter tip is located by determining a region in an artery in which contrast medium is present next to a region where no contrast medium is present. The boundary of which depicts the location of the catheter tip. Kuhn fails to set forth that the contrast agent is administered to an area around the catheter tip via an i.v. injection directly into the body. Prince and White et al are each an example that discloses providing a contrast agent to an area to be imaged via IV injection. It would have been obvious to one skilled in the art to have modified Kuhn such that the blood pool contrast agent is administered by IV injection. Such a modification involves the substitution of one known method for administering a contrast agent to an area adjacent catheter tip for another in order for the catheter to be visualized and guided through the vasculature. The substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention. Both of these methods would allow one to locate the tip of the catheter by determining a region in an artery in which contrast medium is present next to a region where no contrast medium is present. With respect to claim 25, this limitation is inherent in the method disclosed.

Claims 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn in view of Prince ('619) or White et al as applied to claim 14 above, and further in view of Gunther et al. Kuhn fails to specifically disclose the blood pool contrast agents used. Gunther et al disclose MR blood pool contrast agents. The contrast agents are as set forth in claims 16-19. It would have been obvious to one skilled in the art to have further modified Kuhn such that the blood pool contrast agents used are those disclosed by Gunther et al. Such a modification merely involves the selection of a known type of blood pool contrast agent for those used in the method of Kuhn. The substitution of

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one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention. With respect to claims 20-24, Gunther et al discloses the use of these materials and positive and negative contrast agents which use differences in T1 and T2 as set forth.

Claims 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn in view of Prince ('619) or White et al as applied to claim 14 above, and further in view of Ericcson et al. Kuhn fails to specifically disclose the specific types of imaging sequences set forth. The use of the specific types of imaging sequences set forth in claims 26-27 are old and well known and taught for example by Ericcson et al. It would have been obvious to one skilled in the art to have further modified Kuhn such that the imaging sequences used are as taught by Ericcson et al. Such a modification merely involves the selection of a known type of imaging sequences used in MR contrast enhanced imaging. The selection of any known type of imaging sequence used in MR contrast enhanced imaging would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Claims 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn in view of Prince ('619) or White et al as applied to claim 14 above, and further in view of Filler et al. Kuhn fails to specifically disclose the specific types of contrast agent and imaging parameters. Prince discloses MR imaging using a blood pool contrast agent and small flip angles combined with short echoes as well as sequences that employ larger flip angles and longer echo times. Filler et al disclose the use of a blood pool contrast agent that includes an iron oxide. It would have been obvious to one skilled in the art to have further modified Kuhn such that the contrast agent includes iron oxide and the flip angles are between 20 and 90 degrees with echo times being less than 10 ms. Such a modification merely involves the selection of known types of blood pool contrast agents and known imaging sequences used in contrast enhanced MR imaging procedures. The selection of any known type of contrast agent and imaging

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sequence used in MR contrast enhanced imaging would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

(10) Response to Argument

The Appellant has not provided any evidence to show unexpected results that occur from direct injection of the contrast agent into the vasculature where it ends up surrounding the device compared to enclosure of the contrast agent within the device. Both means for supplying a contrast agent in the vicinity of the device would allow the device to be visualized and guided in the body. Kuhn discloses that the catheter tip is located by determining a region in an artery in which contrast medium is present next to a region where no contrast medium is present. The boundary of which depicts the location of the catheter tip. In view of the teachings that it is known to place a contrast agent in the body via IV injection, it would have been obvious to one skilled in the art to have modified Kuhn such that the contrast agent is positioned in the vicinity of the catheter body via direct IV injection. Such a modification involves the substitution of one known means for placing the contrast agent in the vicinity of the catheter body for another. The substitution of one known method of placing the contrast agent in the vicinity of the catheter body for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention. Both of these methods would allow one to locate the tip of the catheter by determining a region in an artery in which contrast medium is present next to a region where no contrast medium is present.

With respect to the disclosure in column 4, lines 37-41 of the Kuhn patent, it is respectfully submitted that Kuhn does not require high-resolution images and only suggests that they may be acquired (column 3, lines 40-45). Furthermore, Kuhn discloses only that the blood behind the catheter tip is no longer imaged. The blood flowing in front of the catheter tip could be used in contrast to the catheter itself in view of an IV administered contrast agent in order to locate the catheter tip. Kuhn clearly discloses that MR images around and in front of the catheter are continuously generated. Having the contrast agent in the blood in front of the catheter tip would provide the same predictable results that would result from the contrast agent being contained within the tip of the catheter.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Ruth S. Smith
Primary Examiner
Art Unit 3737

Conferees:

Art Unit: 3737

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

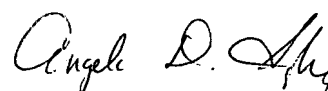
Respectfully submitted,



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